

H1 A preferred vector for the insertion of the modified sequences, pBJ1Neo with a polylinker insertion site is shown in Figure 8. The host vector, pBJ1Neo is described in *Mol. Cell Biol.* (1988) 8: 466; the polylinker is described in *Science* (1990) 249: 677.

#### IN THE CLAIMS:

Please cancel claims 6-21 without prejudice.

Kindly amend claims 1 and 4 as follows.

1. (Amended) A method to prepare an isolated nucleic acid molecule having a nucleotide sequence encoding at least one of each of the variable regions of the  $\alpha$  and  $\beta$  chains of a non-human T-cell receptor (TCR) which TCR is specific for a tumor-associated antigen (TAA) which method comprises

H2 immunizing a transgenic non-human mammal species, which produce human HLA, with an effective amount of said TAA to produce HLA restricted cytotoxic T lymphocytes (CTL) which display TCR specific for said TAA in amounts sufficient to lyse tumor cells having the TAA,

recovering said HLA restricted CTL, which contain said nucleic acid molecules encoding at least one of each of the variable regions of the  $\alpha$  and  $\beta$  chains of a non-human TCR,

cloning or amplifying said nucleic acid molecule encoding the TCR nucleotide sequence isolated from the HLA restricted CTL,

recovering said TCR receptor-encoding nucleic acid molecules; and

fusing the recovered nucleic acid molecules together to prepare the isolated nucleic acid molecule, wherein the fused nucleic acid molecules encode a single-chain TCR.

H3 4.(Amended) The method of claim 3 wherein the cloning or amplifying step further comprises a polymerase chain reaction using primers derived from murine TCR.

#### REMARKS

Claims 6-21 have been canceled without prejudice or disclaimer of any subject matter. The right to file subsequent applications that claim the subject matter is reserved.